

ZF MACHZ™ INTEGRATED DEVELOPMENT SYSTEM

*Network-ready embedded
system computer based on
ZF's MachZ*

MachZ 32bit CPU

10/100Base-T Ethernet

*VGA/XGA/SVGA/SXGA
CRT controller*

*Two serial ports connections, one
selectable as IrDA*

One parallel port connection

Three PCI expansion slots

Two ISA expansion bus slots

Two USB ports

PS/2 keyboard and mouse

Floppy disk drive

IDE (ATA-4) disk drive

CD ROM disk drive

OS software and utilities preloaded

*Lynx Real-Time Systems, Inc.
Blue Cat™ Linux*

*Full Red Hat®
Linux 6.X distribution*

Phoenix BIOS

Caldera DR-DOS

RTOS

The ZF MachZ Integrated Development System is a network-ready and video-ready, full-function ATX size evaluation system. The system features ZF's system-on-a-chip, MachZ, with 10/100Base-T Ethernet (PCI) card and a display controller (PCI) to create an evaluation environment that allows the OEM designer to test the MachZ processor with proprietary hardware and software.

Complete Feature Set

The ZF MachZ Integrated Development System incorporates all the functionality of a standard PC motherboard with a number of enhancements and added features. The board includes serial and parallel connectors, floppy disk header and IDE connectors, user-available flash, external JEDEC byte-wide socket, ISA and PCI expansion bus connectors, AT-compatible BIOS. Our patent pending FailSafe™ Boot ROM allows the user to easily reboot the system if the BIOS is corrupted, or if the CMOS is inadvertently configured in a manner which locks the system in an unusable mode. The user can then simply reprogram the FLASH to recover the system. In addition an ATX power supply, a hard drive (preloaded with an RTOS and Linux OS), a floppy drive, a CD, a keyboard, mouse, and cables are all included to facilitate the engineer's bring-up task.

Quicker design cycle, shorter time-to-market

Easily integrate the widest selection of embedded hardware peripherals by attaching ISA or PCI expansion cards directly to the board via the sockets provided. The PC/AT ROM-BIOS and OS enable you to develop software on your desktop PC and then easily transfer your development work to the embedded system with little or no modification. Or you can develop your application software directly on the ZF MachZ Integrated Development System.



SPECIFICATIONS

ZF MachZ™ Integrated Development System

MachZ CPU

- Reference MachZ technical manuals for details

DRAM

- 64MB DIMM installed

Two Universal Serial Bus Connectors

- Two independent USB interfaces.
- Open Host Controller Interface (Open HCI) compliant
- Second generation proven core design

Two ISA Expansion Bus Connectors

- Full set of ISA bus signals
- Complete IRQ set
- 16 & 8 bit DMA support

Three PCI Expansion Bus Connectors

- 32 bit 33MHz rev 2.1 compliant
- Burst transfers up to 120MB per second
- Supports up to three external PCI masters

Two Serial Port Connectors

- Two 16550-type RS232C serial ports
- Infrared communications port off of one of the serial ports

One Parallel Port Connector

- One fully-compatible PC/AT parallel port
- Supports bi-directional operation (EPP)

On-Board Solid State Storage

- 2MB Flash on-board

IDE (ATA-4) Connectors

- Second IDE master/slave channel available

INCLUDED DEVELOPMENT SYSTEM COMPONENTS

Ethernet Controller

- 100 Base-T (twisted pair) 10/100Mb/s
- PCI card

Video

- Standard 15-pin VGA interface
- PCI card

Rotating Media

- Floppy drive
- IDE (ATA-4) disk drive
- CD ROM drive

PS/2 Keyboard and Mouse

ATX Power Supply

Software

- Full Red Hat® Linux 6.X distribution
- Lynx Real-Time Systems, Inc. Blue Cat™ Linux
- Phoenix BIOS
- RTOS
- Caldera DR-DOS

Development Accessories

- Infrared interface board
- Z-tag programming tool
- Z-tag manager software
- ZF Host and ZF Utilities software

PRELIMINARY

Ordering Information

SOC-MZP-Q-01

The ZF FailSafe Bootable PC-on-a-Chip (BIOS & O/S licenses included)

SOC-MZP-K-01

The ZF FailSafe Bootable PC-on-a-Chip Development System includes ATX-MZP-Q-01 main board in case, cables, S/W license images, manuals, reference design and CAD files.



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